

Serial No. 10/621,904
Reply to Office Action of September 20, 2005

AMENDMENTS TO THE DRAWINGS

New sheets of drawings inclusive of revised Figs. 2, 4 and 10 are submitted herewith pursuant to 37 CFR 1.121(d).

REMARKS

Claims 1-6, 9, 10, 14-19, 23-28 and 30 have been amended. Claims 1-19 and 23-33 are pending in the application. Claims 20-22 have been withdrawn from consideration. Claims 1-19 and 23-33 remain in the application.

The drawings were objected to as being inconsistent with the specification. Reference number 40c was inadvertently left out of Fig. 2. Fig. 2 has been amended accordingly. In addition, the various parts shown in Fig. 10 require a bracket to show their relationship. Fig. 10 has been amended accordingly to add this bracket. Further, Fig. 4 has been amended to extend a lead line.

A reference cited in the application, EP 0748713, was inadvertently omitted from the IDS. A supplemental IDS is being submitted concurrent with this response.

Claims 4, 6, 9, 16, 19 and 30 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The claims have been amended to more distinctly claim the invention. Therefore, Applicant respectfully submits that claims 4, 6, 9, 16, 19 and 30 are in a condition for allowance, which allowance is solicited.

Claims 1, 2, 5, 7, 8, 9, 10-14, 17, 19, 23, 24, 27, 29, 30 and 31-33 were rejected under 35 U.S.C. §102(e) as being anticipated by DeForest (USPN 6,860,170). The Applicant respectfully traverses this rejection.

U.S. Patent Number 6,860,170 to DeForest discloses an electronic throttle control hysteresis mechanism. Figs. 5-7 illustrate a control pedal assembly 100 that includes a hysteresis device 18. The hysteresis device includes a plunger 102 and a resilient spring member 104

biasing the plunger 102. The plunger has an engagement portion 106, which is a block having an arcuate upper surface, and a guide portion 110 having a hollow tube extending downwardly from the lower surface of the engagement portion. A spring member 104 is disposed within the guide member, and biases the plunger against the guide surface 108. The upper end of the pedal arm 14 has a cavity 112 for receiving the plunger therein for sliding movement of the plunger into and out of the opening. Two return springs 80, 82 engage the forward side of the pedal arm at one end, and the housing at the other end. The return springs bias the pedal arm to an idle position when no pressure is applied to the pedal. DeForest does not disclose a hysteresis generating means pivotally connected to an upper pedal arm, as disclosed by the Applicant.

In contradistinction, claim 1 discloses an electronically controlled pedal assembly with hysteresis. The pedal assembly 10 includes a housing 12 having a front wall 14 and an arcuate friction wall extending from an edge of the front wall. The friction wall has a radius of curvature centered on a pedal arm pivot point 20. A pedal arm 22 having an upper pedal arm 32 and a lower pedal arm 34 is rotatably supported at the pedal arm pivot point by a mounting means operatively connected to the housing. The pedal arm pivot point is positioned between the upper pedal arm and lower pedal arm. The pedal assembly further includes a hysteresis generating means 38 pivotally connected to the upper pedal arm. The pedal assembly further includes a spring 46 positioned between the housing and the hysteresis generating means. The spring biases the hysteresis generating means against the housing. In operation, depression of the pedal arm compresses the spring while increasing a frictional hysteresis force between the arcuate friction wall and the hysteresis generating means that is translated back through the pedal arm,

and release of the pedal arm reduces the frictional hysteresis force. Claims 14 and 23 are similar to claim 1, and include additional limitations.

DeForest '170 does not disclose, anticipate or otherwise suggest the invention of claim 1 as amended. DeForest '170 merely discloses that an upper end of the pedal arm contains a cavity for receiving the hysteresis generating means, and the hysteresis generating means slides in and out of the cavity in the pedal arm, like a plunger (column 8, lines 22-24). DeForest '170 does not disclose a hysteresis generating means pivotally connected to the upper end of the pedal arm, as taught by the Applicant. The structure of a hysteresis device that is slidably disposed within the cavity of the pedal is not the same structure as a hysteresis generating means pivotally connected to the pedal arm. A sliding connection is simply not the same connection as a pivotal connection.

Further, DeForest '170 teaches two concentric return springs extending between the upper end of the pedal arm and the housing, to bias the pedal arm to an idle position when no pressure is applied to the pedal (column 8, lines 50-54). As pressure is applied to the pedal, the spring is compressed, and when the pressure is removed, the spring force returns the pedal arm to an idle position (column 9, lines 18-20). The present application is distinguishable since it teaches that the spring is positioned between the hysteresis generating means and the housing, and depression of the pedal arm compresses the spring to increase the frictional hysteresis force between the hysteresis generating device and the housing. The use of the spring to return the pedal arm to an idle position is not the same as the use of the spring to bias the hysteresis generating means against the housing. Therefore, the structural position of the spring and the function of the spring are distinguishable between the present invention and DeForest.

These are critical structural distinctions between the pedal assembly taught by DeForest '170 and that taught by the Applicant. The Examiner argues that the hysteresis generating means of DeForest that *pivots about the pedal arm pivot axis as the pedal arm is pivoted* is the same as *the pivotal connection of the hysteresis generating means to the pedal arm enabling the hysteresis generating means to pivot relative to the pedal arm*, as disclosed by the Applicant. The Applicant submits that one skilled in the art would know and understand that a member pivotally connected to another member means that the first member pivots relative to the second member, and not that the first member and second member pivot together.

Therefore, it is respectfully submitted that claims 1, 14 and 23 as amended, and the claims dependent therefrom are allowable over the rejection under 35 U.S.C. §102(e).

Claims 10-13, 23, 24, 27, and 29-33 and were rejected under 35 U.S.C. §103(a) as being unpatentable over DeForest in view of Hobein et al. The Applicant respectfully traverses this rejection for the reasons set forth above with respect to DeForest. Therefore, it is respectfully submitted that claims 10-13, 23, 24, 27 and 29-33 are allowable over the rejection under 35 U.S.C. §103(a).

Claims 6, 18 and 28 were rejected under 35 U.S.C. §103(a) as being unpatentable over DeForest in view of Applicant's own admission that Groups I-IV are not patentably distinct. The Applicant respectfully traverses this rejection for the reasons set forth above with respect to DeForest. Therefore, it is respectfully submitted that claims 6, 18 and 28 are allowable over the rejection under 35 U.S.C. §103(a).

Claims 3, 15, 25 and 26 were objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 3, 15 and 25 have been amended accordingly.

The Examiner indicated that claims 4 and 16 would be allowable if rewritten to overcome the rejections under 35 U.S.C. §112, second paragraph. The claims have been amended accordingly. The Applicant respectfully submits that claims 3, 4, 15, 16 and 25 are now in a condition for allowance, which allowance is solicited.

Based on the above, the Applicant submits that the claims are in a condition for allowance, which allowance is respectfully solicited. If the Examiner finds to the contrary, it is respectfully requested that the undersigned in charge of this application be called at the telephone number given below to resolve any remaining issues.

Respectfully submitted,


Beverly M. Bumby
Beverly M. Bumby
Registration No. 36,072
Gifford, Krass, Groh, Sprinkle,
Anderson & Citkowski, P.C.
2701 Troy Center Drive, Suite 330
P.O. Box 7021
Troy, MI 48007-7021
(248) 647-6000

Attorney for Applicant

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Janice R. Kuehn
Janice R. Kuehn